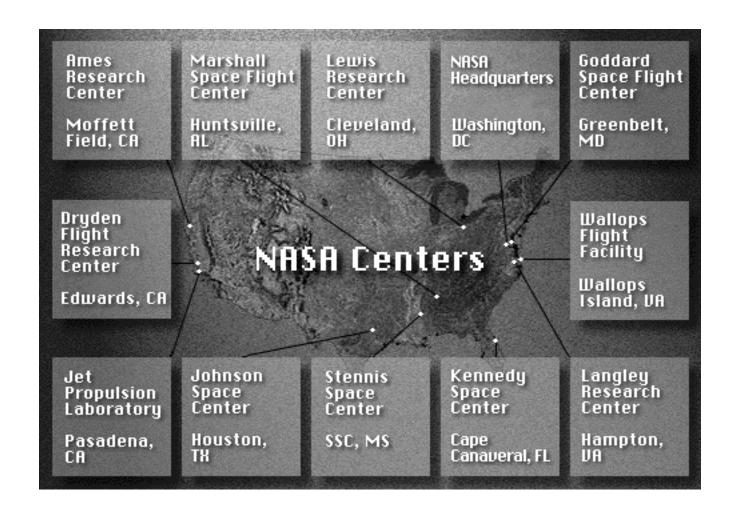
## NINTH ANNUAL HIGH-TECH SMALL BUSINESS CONFERENCE

# NASA / J

# INFORMATION PACKAGE

Jet Propulsion Laboratory California Institute of Technology Pasadena, California

## **NASA CENTERS**



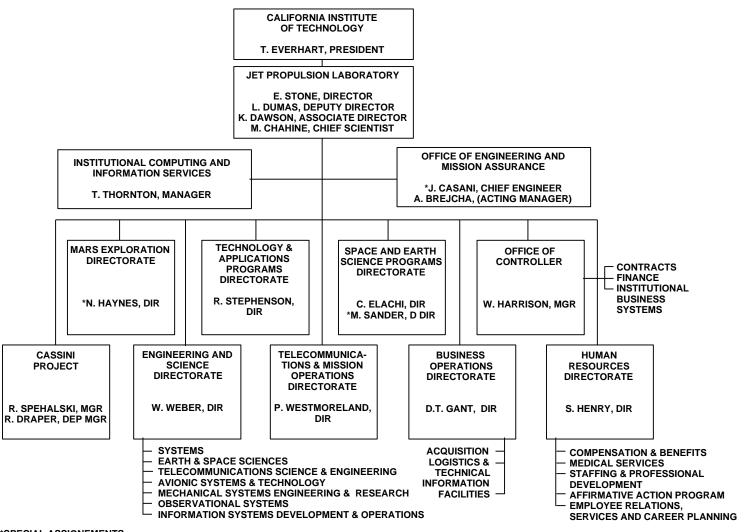
## **NASA SMALL BUSINESS PROGRAM**

- JPL has a very pro-active small business program
- Percentage goals are set for small Business participation
- Procurements are analyzed for small Business potential
- JPL is interested in adding small businesses to our industry partner base
  - Expanding our industry supplier base to include a full compliment of SBs for the high technology products and services that JPL and other centers require
  - Establishing partnerships and teaming relationships with a range of small businesses in support of research tasks and new mission proposals
  - Enlarging our industry base with emerging SBs through an expanded mentoring program

## THE NASA-JET PROPULSION LABORATORY

- ¥ Dual Character
  - ¥ A unit of Caltech staffed with Caltech employees
  - ¥ Government-owned installation of NASA (Federally Funded Research and Development Center, FFRDC)
- ¥ Major National R & D Capability Supporting
  - ¥ NASA programs
  - ¥ Programs of national importance for other government agencies, industry, and academia
  - Transfer of technology to the civil sector

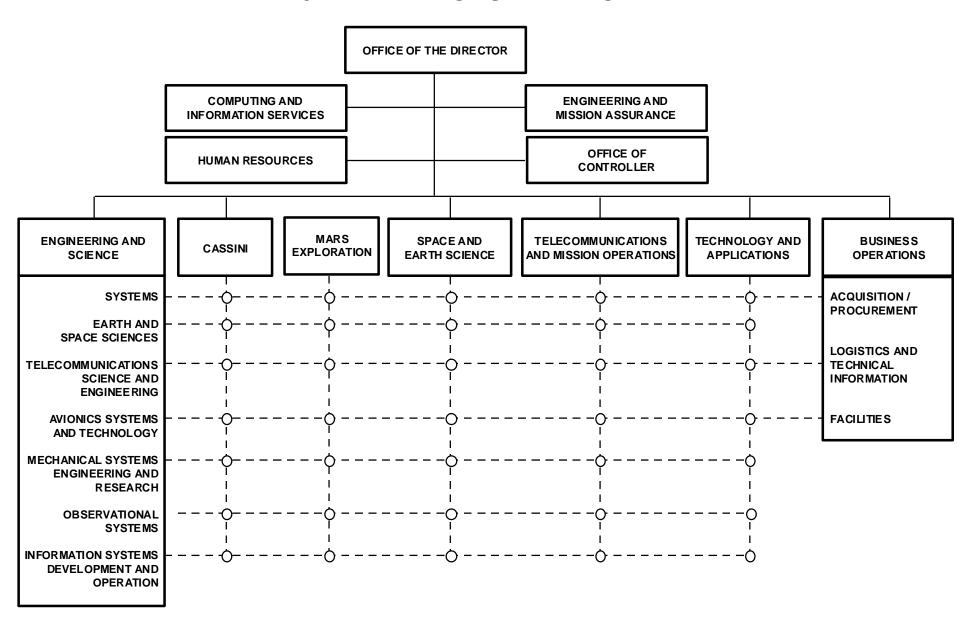
### JPL ORGANIZATION



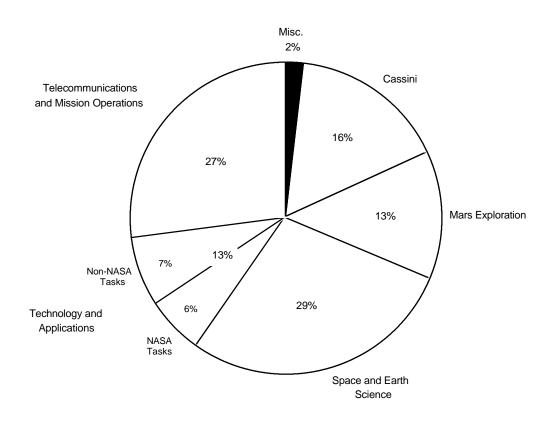
\*SPECIAL ASSIGNEMENTS:

- J. CASANI, RULE RE-ENGINEERING, OUTSOURCING
- N. HAYNES, MISSION DESIGN RE-ENGINEERING
- M. SANDER, MISSION DESIGN RE-ENGINEERING TEAM LEADER
- R. PLOSZAJ, GROWTH AND ASSIGNMENT OF PEOPLE RE-ENGINEERING
- **VACANT, INSTITUTIONAL BUSINESS SYSTEMS RE-ENGINEERING**

## JPL MATRIX ORGANIZATION

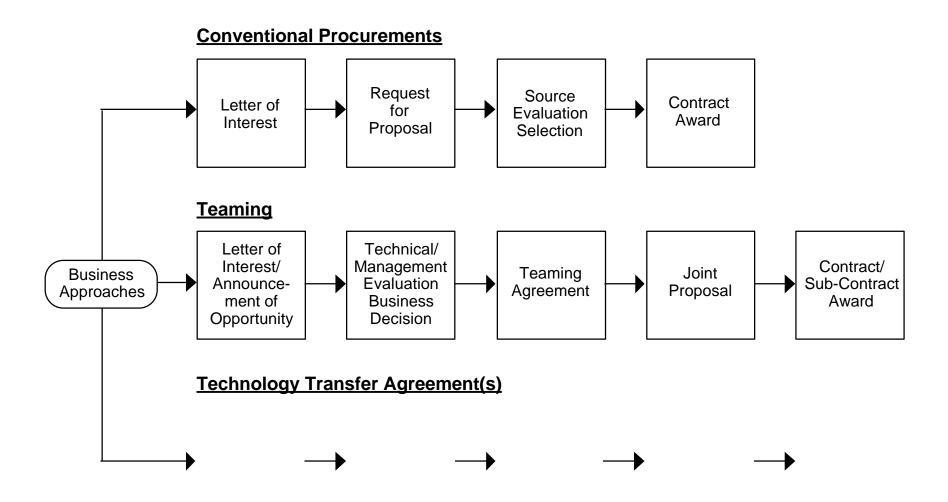


## JPL PROGRAM COST DISTRIBUTION FY '96



**TOTAL FUNDING FORECAST: \$1,065 MILLION** 

### **DOING BUSINESS AT JPL (NASA)**



Note: Mentoring support available for contracts, teaming, and technology transfer agreements.

## SOME KEY CONTRACTUAL INTERFACES AT JPL (NASA)

- Contract Negotiator (Contracting Officer)
  - Authority for commitment of Laboratory
  - Responsible for preparation of contract, pursuant to applicable regulations
  - Administrative aspects
  - Partnership with Contract Technical Manager (CTM)
- Contract Technical Manager (Contracting Officer Technical Representative)
  - Provides contract technical direction (cannot change contract)
  - Accountable for technical, schedule, and cost performance
  - Accepts products
  - Partnership with Contract Negotiator (CN)

## **HOW TO GET ON CONTRACT AT JPL**

- JPL invites open industry interaction
  - Inquiries on future procurement forecasts
  - Briefings on capability
  - Technical interchange on areas of mutual technological interest
- JPL is an "engineering and science" house
  - Ensure technical personnel aware of your company's capability and experience
  - Leading edge technology or innovative processes that can enable missions
  - Penetrate and understand requirements
  - Emphasize cost effectiveness of your approach and/or doing business with your organization
- Positive LOI response will result in receipt of Request for Proposal (RFP)
- Unsolicited proposals may be submitted to the Business Opportunities Office (see Contact List)

## **HOW TO GET ON CONTRACT AT JPL (Cont'd.)**

- New acquisition streamlining emphasizes
  - Pre-RFP/draft RFP interactions (Bid/No Bid?)
  - Tailored RFP (minimum necessary)
  - Streamlined source evaluation and selection process
- Also pursue Technology Cooperative Agreement or Teaming Arrangements

### **TEAMING ON HIGH TECHNOLOGY PROPOSALS**

- New NASA initiatives/Announcements of Opportunity (AOs) are stressing the need for teaming between industry and the government centers (JPL) in future missions.
- Per AO, JPL selects a teaming partner and they jointly respond with a proposal.
  - Partner participates in mission design, costing and implementation planning.
  - If selected, the partner is awarded a contract without further solicitation.
  - In team member selection, JPL seeks hi-tech partner with complementing unique skills to enhance proposal acceptance and NASA mission success.
- These arrangements are formed very early on and may be executed in lieu of the traditional competing and re-competing of efforts during conventional phase A, B & C/D project cycles.

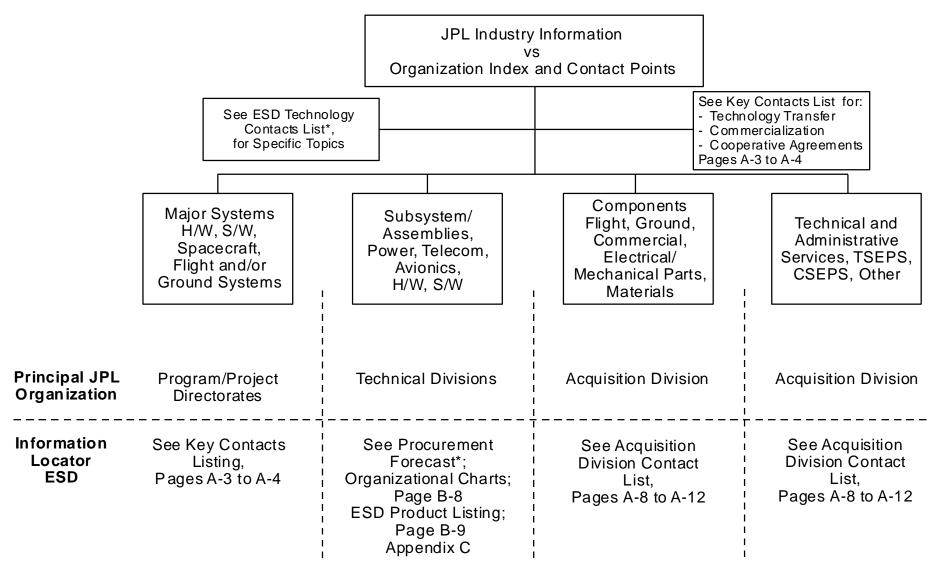
## **TEAMING ON HIGH TECHNOLOGY PROPOSALS (Cont'd)**

- S/SDBs can participate in a number of ways, e.g.,
  - Furnish a small instrument subsystem or key technology component as a direct teaming partner.
  - Participate as a sub-contractor to JPL or one of its major sub-contractors.
  - Be a designated partner by the principal science investigators
- Key entry is provision of mission enhancing advance technology which was developed by the S/SDB or jointly in a technology cooperative arrangement with NASA/JPL.

## **ELECTRONIC ACCESS TO NASA / JPL / SBA**

•	You can view the JPL External home page with a web browser at <a href="http://www.jpl.nasa.gov">http://www.jpl.nasa.gov</a>				
	<ul> <li>The Procurement Forecast - <a href="http://www.jpl.nasa.gov/esd/">http://www.jpl.nasa.gov/esd/</a></li> <li>The Technology Contacts Listing - <a href="http://www.jpl.nasa.gov/esd/contacts.html">http://www.jpl.nasa.gov/esd/contacts.html</a></li> </ul>				
•	You can view the JPL Acquisition Division home page (which includes Terms and Conditions) at <a href="http://acquisition.jpl.nasa.gov">http://acquisition.jpl.nasa.gov</a>				
	The Active Contracts List is located at <a href="http://procurement.jpl.nasa.gov/external.htm">http://procurement.jpl.nasa.gov/external.htm</a>				
•	The NASA home page is located at <a href="http://www.nasa.gov">http://www.nasa.gov</a>				
	<ul> <li>The Office of Small Disadvantaged Business Utilization (OSDBU) can be viewed at <a href="http://venus.hq.nasa.gov/office/codek/index.html">http://venus.hq.nasa.gov/office/codek/index.html</a></li> </ul>				
	<ul> <li>The US Small Business Administration home page, with links to many other agencies at <a href="http://www.sbaonline.sba.gov">http://www.sbaonline.sba.gov</a></li> </ul>				
•	The NASA 1997 Acquisition Forecast may be viewed at <a href="http://procure.msfc.nasa.gov/forecast/index.html">http://procure.msfc.nasa.gov/forecast/index.html</a>				

## **INFORMATION VS INDEX AND CONTACT POINTS**



<sup>\*</sup>The annual Procurement Forecast and Technology Contacts List came out in July '96. The Forecast can be viewed with a web browser at http://www.jpl.nasa.gov/esd/forecast.html. The Contacts List can be viewed at http://www.jpl.nasa.gov/esd/contacts.html.

## PROCUREMENT FORECAST EXAMPLE

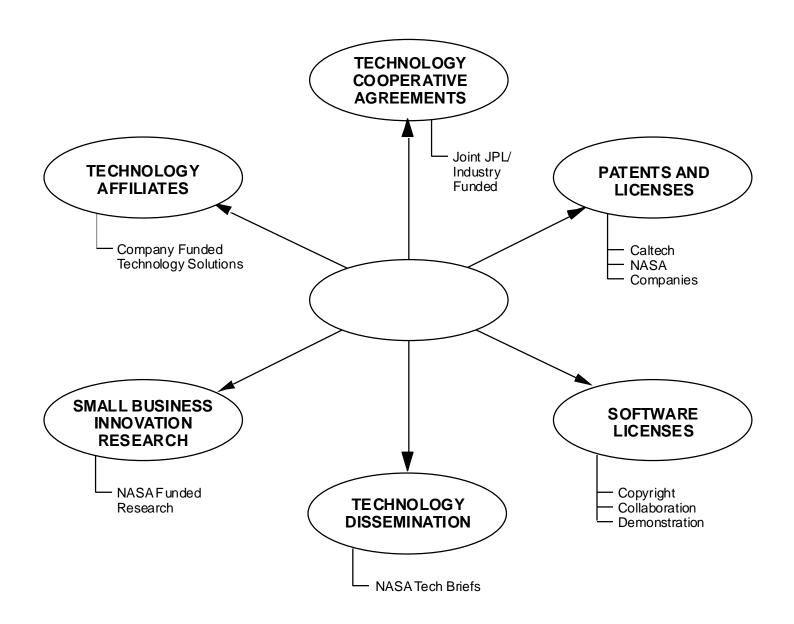
G B	<b>3</b>	•	<b>5</b>	E
341	Siderostat Mirror S. Gunter	Siderostat mechanism used for spaceborne optical interferometry gimbal which assists in star acquisition, and course tracking and pointing. Part of opto-mechanical component qualification program to support future space interferometry missions (SIM, NMI and ISIS).		06/03/96
782	SIMSAT A. McLean	The SIMSAT spacecraft will carry the Acrim 6 instrument which is a total solar irradiance monitor for long-term monitoring of the suns total energy. The craft will be approximately 35 kilograr Expected launch date is December 1998. Contract will provide spacecraft and grounds station, and will procure secondary launch spot for vehicle, as well as providing turn key operations. Expected total procurements between \$17 and 18 million.	tor	7/01/96

# **TYPICAL NASA ACQUISITION FORECAST**

## **TECHNOLOGY CONTACTS EXAMPLE**

SECTION/ DIVISION	CANDIDATE TECHNOLOGY	PRINCIPAL CONTACT
320	Remote Sensing - Multi-spectral imaging - Multi-spectral analysis (spectrometry, radiometry, etc.) - Positioning applications	J. Weiss 354-5420
336	Miniaturized Deep Space Transponders - X-band and Ka-band miniaturized low mass, low cost transponders for multi-mission spacecraft, MMIC and ASIC technology intersection	A. Riley 354-0401
343	Autonomous Control and Pointing - Target recognition and tracking - Autonomous maneuvers and sequencing - Fault detection and recovery	F. Hadaegh 354-8777
394	Collaborative Work Environments, Software Systems	C. Beswick 396-6276

## OTHER WAYS TO WORK WITH JPL



### **ENGINEERING AND SCIENCE DIRECTORATE - PRODUCTS**

#### **ENGINEERING AND SCIENCE DIRECTORATE (300)**

#### SYSTEMS (31)

- MISSION DESIGN
- NAVIGATION
- SYSTEMS ANALYSIS AND ENGINEERING
- SPACECRAFT SYSTEMS DESIGN
- MISSION OPERATIONS SYSTEMS DESIGN
- END-TO-END INFORMATION SYSTEMS DESIGN
- OPERATIONS RESEARCH
- ECONOMICS

#### **TELECOMMUNICATIONS SCIENCE AND ENGINEERING (33)**

- TELECOMMUNICATIONS SYSTEMS ENGINEERING
- COMMUNICATION THEORY
- MICROWAVE REMOTE SENSING
- TRANSMITTERS AND **RECEIVERS**
- ANTENNAE
- ELECTROMAGNETIC **WAVE THEORY**
- ASTRONOMY, **GEODYNAMICS** AND METRIC TRACKING RESEARCH

#### MECHANICAL SYSTEMS **ENGINEERING & RESEARCH (35)**

- MECHANICAL SYSTEMS
- STRUCTURES AND **MECHANISMS**
- DYNAMICS ANALYSIS
- MATERIALS
- THERMAL AND FLUID SYSTEMS
- ELECTRONICS PACKAGING
- DESIGN DRAFTING AND **COMPUTER AIDED DESIGN** (CAD)
- PROPULSION AND **PYROTECHNICS**
- BIOTECHNOLOGY
- CHEMISTRY CATALYSIS AND CHEMICAL SYSTEMS
- COMBUSTION
- HEAT TRANSFER
- MICROGRAVITY SCIENCES

#### INFORMATION SYSTEMS **DEVELOPMENT AND OPERATIONS (39)**

- SPACE FLIGHT OPERATIONS AND MISSION CONTROL CENTER
- GROUND DATA SYSTEMS
- INSTITUTIONAL COMPUTING SYSTEMS AND SERVICES
- INFORMATION SYSTEMS ENGINEERING
- DATA MANAGEMENT AND INFORMATION EXTRACTION
- DIGITAL COMMUNICATIONS SYSTEMS AND COMPUTER NETWORKS
- COMPUTER GRAPHICS
- ARTIFICIAL INTELLIGENCE
- STIMULATION SYSTEMS
- COMMAND AND CONTROL SYSTEMS
- SECURE COMMUNICATION

#### **EARTH AND SPACE** SCIENCES (32)

- ACTIVE AND PASSIVE REMOTE **SENSING**
- EARTH AND PLANETARY **ATMOSPHERES**
- EARTH AND PLANETARY GEOSCIENCE ADVANCED MICROELECTRONICS/VSI
- OCEANOGRAPHY
- PLANETARY ASTRONOMY
- INTERPLANETARY PHYSICS
- SOLAR/ASTROPHYSICS
- LABORATORY CHEMISTRY & PHYSICS

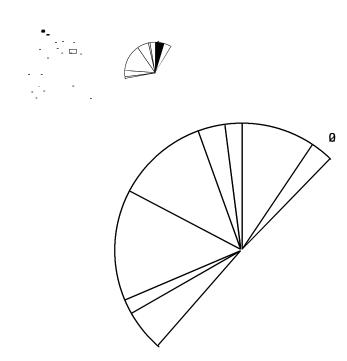
#### **AVIONIC SYSTEMS & TECHNOLOGY (34)**

- AVIONIC SYSTEMS ENGINEERING
- SYSTEMS ENGINEERING
- ROBOTICS AND TELEOPERATORS
- SEMICONDUCTOR MATERIALS
- PHOTOVOLTAIC POWER
- ADVANCED ELECTRONIC PACKAGING
- ELECTRONIC FABRICATION
- IN-SITU EXPLORATION SYSTEMS &
- **INSTRUMENTS** DIGITAL & ANALOG ELECTRONICS
- CONTROL SYSTEM A
- ELECTROCHEMICAL TECHNOLOGY
- TRACKING SENSORS
- FLIGHT COMPUTERS

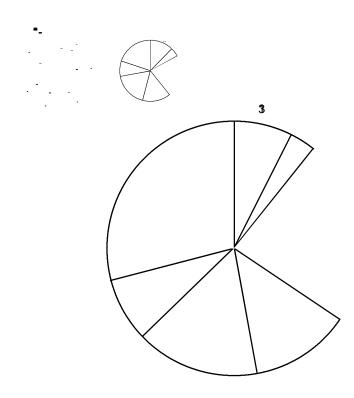
#### **OBSERVATIONAL** SYSTEMS (38)

- VISUAL IMAGING SYSTEMS
- INFRARED INSTRUMENTS
- PASSIVE MICROWAVE INSTRUMENTS
- IMAGE PROCESSING TECHNOLOGY
- SCIENCE DATA ANALYSIS
- INSTRUMENT FABRICATION AND TEST

## JPL SB CONTRACTING



## **ESD TECHNICAL DIVISIONS SB CONTRACTING**



## **SUMMARY**

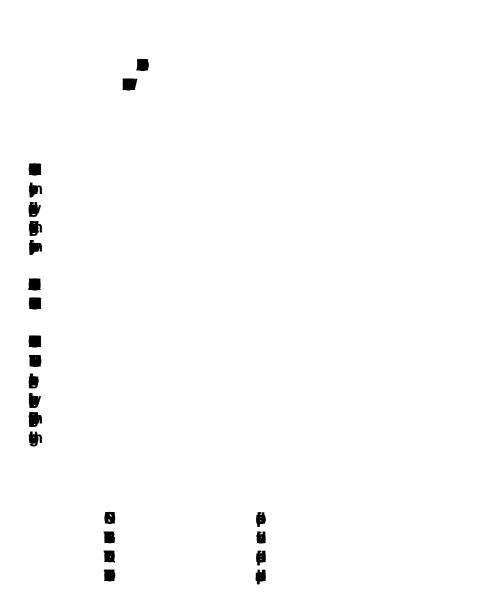
- Attached is a list of key contact personnel at all JPL and NASA centers and the Office of Small Business Utilization, Code K
- They are ready to assist small businesses in gaining access to the center's business opportunities in all areas
  - Business Forecasts
  - Technology Transfer
  - Prime Contractor Lists
- New outsourcing initiatives are providing additional contracting opportunities
  - Part of government downsizing and streamlined contracting practices
  - Make your capability known and help "create" a match
- Business forecasts and technology contacts, are listed on the internet, or if you do not currently
  have electronic access contact the SB representative from a center in your area.



## NASA/JPL RELATIONSHIPS

- ¥ JPL regarded as a member of the NASA family of field centers
- ¥ Essentially all work performed through task orders under prime contract with NASA
- ¥ Task assignments originate in many NASA offices at various levels
- ¥ 25% of work may be performed for non-NASA sponsors who reimburse NASA
- ¥ Technical direction of tasks remains with the sponsor
- ¥ As an FFRDC, can function as a partner with the sponsor:
  - ¥ Support systems requirements definition
  - ¥ Flexible in response to changes
- ¥ As an FFRDC cannot compete with industry

# JPL VISION, MISSION, AND VALUES



### NASA SMALL AND DISADVANTAGED BUSINESS PERSONNEL

Office of Small and Disadvantaged Business Utilization - Code K		
Associate Administrator Samll/Dis Bus. Specialist Special Assistant for Procurement Small/Dis Bus. Specialist Small/Dis Bus. Specialist	Ralph C. Thomas III Rae C. Martel Thomas V. Green, Jr. Anthony Diamond Lamont O. Hames	202-358-2088 202-358-0640 202-358-2403 202-358-0638 202-358-3261
Director, Small Business Development Programs		
NASA/Center for Technology Commercialization 505 Amherst Street Nashua, NH 03063-6360 Ltrs - PO Box 6360	Glenn Wright	603-598-8800 Fax 603-598-9830 800-861-5037
Field Installation Small and Disadvantaged Business Specialists		
Ames Research Center Mail Code 241-1 Moffett Field, CA 94035-1000	Tom Kolis	415-604-4690 Fax 415-604-4646
Dryden Flight Research Center Mail Stop D1044 P.O. Box 273 Edwards, CA 93523-0273	Robert Medina	805-258-3343 Fax 805-258-2292
Goddard Space Flight Center Mail Code 263 Greenbelt, MD 20771	Janet Jew	301-286-6574 Fax 301-286-1746
Headquarters Acquisition Division Mail Code CW Washington DC 20546	Larry Smith	202-358-1355 Fax 202-358-3080
Jet Propulsion Laboratory Mail Stop 249-113 4800 Oak Grove Drive Pasadena, CA 91109-8099	Margo Kuhn	818-354-5722 Fax 818-393-1746
John C. Stennis Space Center Mail Code DA30 Stennis Space Center, MS 39529-6000	Jane Johnson	601-688-3681 Fax 601-688-1141
Johnson Space Center Mail Code BD 3 Houston, TX 77058	Billy Jefferson	713-483-4134 Fax 713-483-4326

Kennedy Space Center Mail Code OP-AMS Kennedy Space Center, FL 32899	Ann Watson	407-867-7217 Fax 407-867-3661
Langley Research Center Mail Code 144A Hampton, VA 23681-0001	Vernon Vann	804-864-2456 Fax 804-864-6131
Lewis Research Center Mail Stop 500-313 Cleveland, OH 44135	Steve Fedor	216-433-2144 Fax 216-433-5489
Field Installation Small and Disadvantaged Business Specialists	- Continued	
Marshall Space Flight Center Mail Code AP16 Huntsville, AL 35812	Stanley McCall	205-544-0254 Fax 205-544-5851
NASA Resident Office, JPL Mail Stop 180-805 4800 Oak Grove Drive Pasadena, CA 91109-8099	Dora Huff	818-354-6315 Fax 818-354-6051
Space Station Procuring Office Johnson Space Center Mail Stop OG51 Houston, TX 77058	Tony Nguyen	713-244-7889 Fax 713-244-8036
Wallops Flight Facility Procurement Analyst Goddard Space Flight Center Mail Code 244.1 Wallops Island, VA 23337	Mickey Marritt	804-824-1542 Fax 804-824-1974

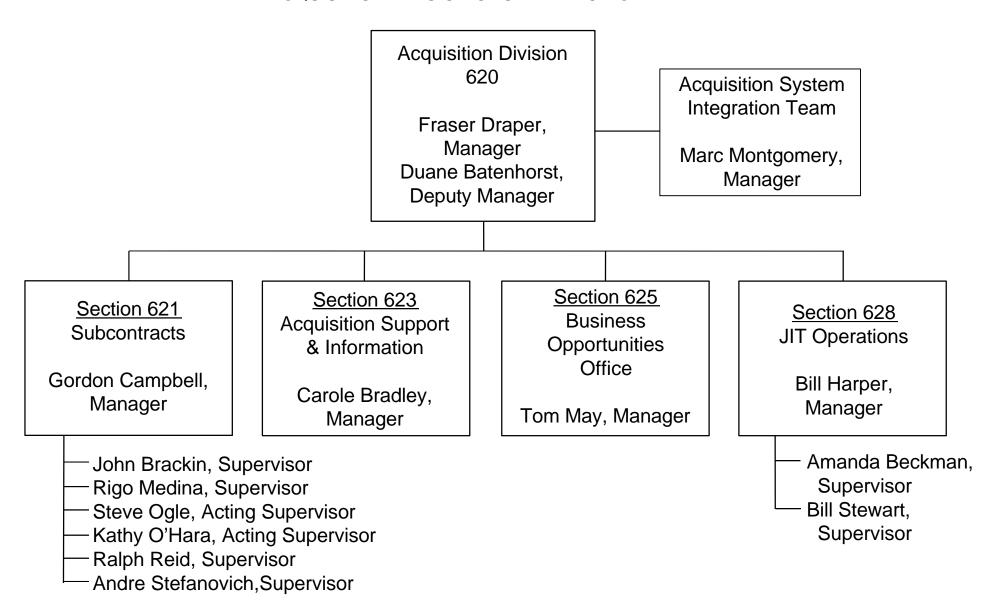
### **KEY JPL CONTACTS LISTING**

ORG	ROLE/TASK	CONTACT(S)	PHONE
140	Cassini Project	D. Spencer	354-4892
170	Institutional Computing and Information	T. Thornton	354-4692
180	Public Affairs Office	G. Alexander	354-7007
300	Engineering and Science Directorate	G. Alexander	004 7007
300	Procurement Planning and Operations	H. Johnson	354-1518
400	Mars Exploration Program Office	G. Robinson	354-5330
500	Office of Engineering and Mission Assurance	A. Brejcha	354-3080
600	Business Operations Directorate	7 ii 210jona	001 0000
620	Acquisition Division	F. Draper	354-6190
621	Subcontracts Section	G. Campbell	354-2536
625	Business Opportunities Office	T. May	354-2121
627	Teaming, Business Considerations	E. Kieckhefer	354-12 93
628	Just In Time Operations	A. Bechman	393-3491
700	Space and Earth Science Directorate		
702	Program Design and Architecture Support Office	D. B. Smith	354-3250
703	Advanced Concepts	S. Gulkis	354-5708
704	Program Technology	R. Capps	354-0720
706	SESP Outreach and Education	A. Sohus	354-6613
710	Solar System Exploration Office	J. Beckman	354-2476
720	Origins and Fundamental Physics	F. Naderi	354-9291
730	Earth Science Program	F. Li	354-2849
740	Space Science Flight Projects	T. R. Gavin	354-5037
742	Ice & Fire Pre-Project	R. Staehle	354-1176
743	Champollion Office	B. Muirhead	393-1013
745	Stardust	K. Atkins	354-4480
749	Solar Probe Program Office	J. Randolph	354-6992
750	Space Infrared Telescope Facility (SIRTF)	L. Simmons	354-6336
760	New Millennium Program	K. Casani	354-7023
770	Earth Science Flight Projects	C. Yamarone	354-7141
780	Earth Science Flight Experiments Program	B. D. Martin	354-8263
790	Space Science Flight Experiments	M. Devirian	354-3993
800	Technology and Applications Directorate		
820	Cen ter for Space Microelectronics	C. Kukkonen	354-8536
		S. Khanna, Dpty.	354-4489
822	Dual Use Technology	T. Hamilton	354-7344
829	JPL Small Business Innovative Research	P. McGuire	354-1258
830	New Millennium Program Office (Dual Reporting with 734)	K. Casani	354-7023

# KEY JPL CONTACTS LISTING Continued

ORG	ROLE/TASK	CONTACT(S)	PHONE
860	Space Mission Technology Development	A. Murphy	354-3480
870	Ground Systems Program	N. Adams	354-4860
880	Flight Systems Program	L. Gref	354-7240
890	Commercial Technology Program	M. McKenzie	354-2577
893	Technology Affiliates Program	J. Rooney	354-2503
900	Telecommunications and Mission Operations Directorate		
910	Business Operations Office	C.T. Stevens	354-6000
920	TMO Plans and Commitments Office	R. Miller	354-1515
940	Deep Space Network Data Services	E. McKinley	354-4471
950	Galileo Project	W. O 'Neil	354-4195
960	U.S. Space Very Long Baseline Interferometry	J.G. Smith	393-1200
970	Multi-Missions Ground Systems Office	T. Linick	354-3161
980	Ulysses Project	E. Massey	354-1 886
990	Voyager Project	G. Textor	306-6001

#### **ACQUISITION DIVISION ORGANIZATION CHART**



### ACQUISITION DIVISION: POINTS OF CONTACT

818-354- 7702)

(Issued by Acquisition Division Office,

SUBJECT	NAME	<u>PHONE</u>
ACCUMULTION ON VIOLEN COMPUTED TO ANNING	D: 1 1122 : 4	040.054.5000
ACQUISITION CIVISION COMPUTER TRAINING	Richard Hillquist	818-354-5826
ACQUISITION DIVISION WWW HOME PAGE	Richard Parker	818-354-2330
ACQUISITION - RELATED TRAINING (EXTERNAL)	Richard Parker	818-354-2330
ACQUISITION - RELATED TRAINING (INTERNAL)	Fran Fi sher	818-354-5532
ACQUISITION - METRICS	Gordon Campbell	818-354-6190
ACQUISITION PROCEDURES, FORMS, AND	0. 5. 1. 1	040.054.4004
MISC. MANUALS	Stan Packard	818-354-4281
ACQUISITION SUPPORT & INFORMATION SECTION	Carole Bradley	818-354-7230
ACQUISITION SYSTEM SOLUTIONS	Marc Montgomery	818-354-5399
ACQUISITION TRAINING	Fran Fisher	818-354-5532
ADVANCE COMPOSITION EXPLORER (ACE)	Midge Breslof	818-397-7146
ATMOSPHERIC INFRARED SOUNDER (AIRS)	Dan Low	818-354-7397
AUDIT - ACQUISITION INTERNAL CONTACT	Jim Curtis	818-354-5825
AUDIT - EXTERNAL CONTACT	Barry Meltzer	818-354-0678
BUILDING SUPPLIES	Pete Stoebe	818-354-3737
CASSINI - BUSINESS REPRESENTATIVE	David Spencer	818-354-4892
CHEMICAL SUPPLY	Larry Meeks	818-354-6768
COLLEGE & UNIVERSITY CONTRACTS	John Davis	818-354-2055
COMMERCE BUSINESS DAILY	Mary Helen Ruiz	818-354-7532
COMPUTER HARDWARE (Macintosh)	Marco Covarrubias	818-354-1544
COMPUTER HARDWARE (all except Macintosh)	Rigo Medina	818-354 -2961
CONSTRUCTION, ARCHITECTS & ENGINEERS	Ralph Reid	818-354-3340
CONSULTING AGREEMENTS	Bunny Bundschuh	818-354-1811
CONTRACT CLOSEOUT	Joyce Grunwald	818-354-3443
	Fran Fisher	818-354-5532
CONTRACTOR ASSESSMENT	Mitch Shellman	818-354-0612
CONTRACTOR CAPABILITIES FILE	Andrew Guyton	818-354-7531
CONTRACTOR OUTREACH	Margo Kuhn	818-354-5722
CONTRACTOR PERFORMANCE REPORTS	Mary Helen Ruiz	818-354-7532
CRYOGENICS SUPPLY	Chris Carlson	818-354-5572
DESKTOP &NETWORK SERVICES	Bob Sadler	818-354-2262
DISCOVERY MISSIONS	Ed Kieckhefer	818-354-1293
EARTH PROBE MISSIONS	Ed Kieckhefer	818-354-1293
EASEMENTS	Nancy Walizer	818-354-4023
EDUCATION/TRAINING CONSORTIUM REP.	Fran Fisher	818-354-5532
ELECTRONIC FORMS & RFP TASK	Mike Kleine	818-354 -6405
ELECTRICAL EQUIPMENT, PLUMBING,		
IRRIGATION SUPPLIES	Katie Keolanui	818-354-2892
ELECTRONIC FLIGHT HARDWARE	Rigo Medina	818-354-2961
ELECTRONIC SUPPLY	Jim Painter	818-354-5310
ENGINEERING AND MISSION ASSURANCE	Bob Risher	818-354-2975
ENGINEERING AND SCIENCE (NON-PROJECT)	Richard Parker	818-354-2330
FABRICATION	Kathy Soverign	818-354-2939

# ACQUISITION DIVISION: POINTS OF CONTACT CONTINUED

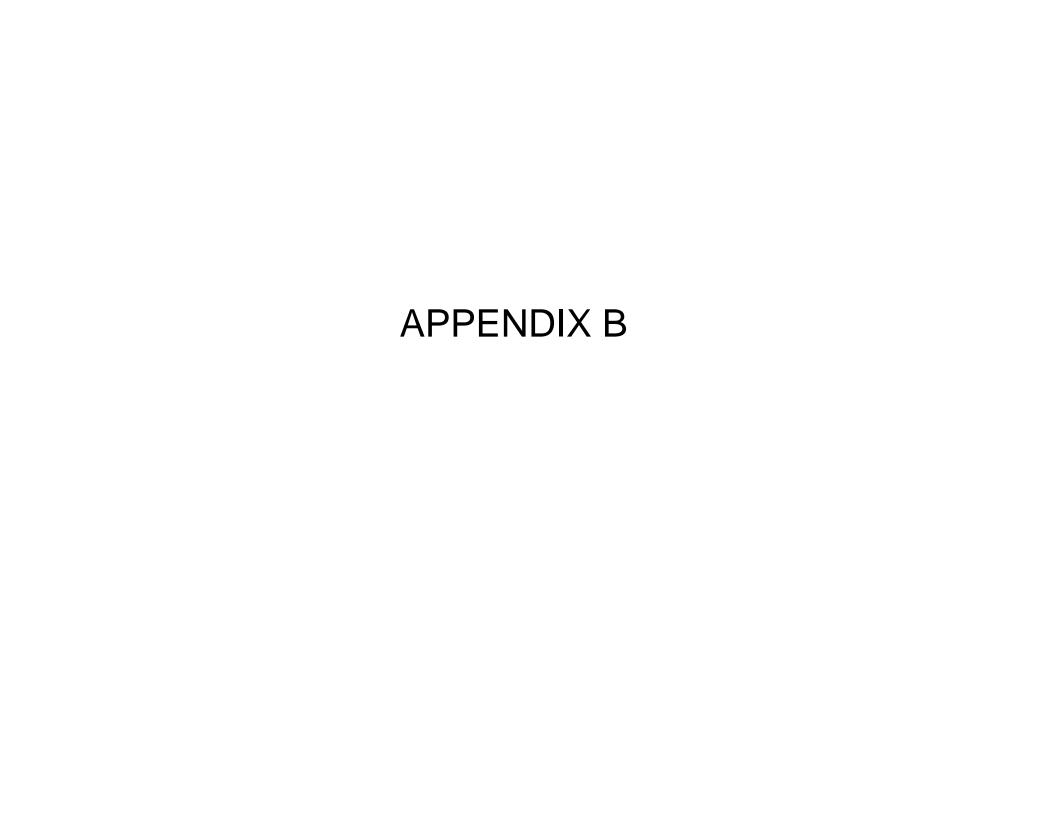
SUBJECT	NAME	PHONE
FACILITIES MAINTENANCE SERVICE	Steve Ogle	818-354-5620
FACILITIES ENGINEERING/CONSTRUCTION	Ralph Reid	818-354-3340
FREEDOM OF INFORMATION ACT,		
EXTERNAL/INTERNAL (NON-PROCUREMENT)	Cerini Bess	818-354-2416
FREEDOM OF INFORMATION ACT, INTERNAL -		
PROCUREMENT	Jim Lane	818-354-1663
FURNITURE - ORDER RELEASING	Cindy Stewart	818-354-9326
G-REQS (TRANSFER OF GOVT. FUNDS FROM		
ONE AGENCY TO ANOTHER)	Gordon Johns	818-354-2852
GAP (GROUP ON ADHOC PARTNERING)	Peggy Easter	818-354-5354
GENERAL INFORMATION	Glenn Campbell	818-354-2530
GeoSAR PROJECT	Mike Jacobs	818-354-7062
GLOBAL TOPOGRAPHICAL MISSION (TOPSAT)	Ed Kieckhefer	818-354-1293
GRAPHICS	Wendy Palsulich	818-354-2900
GSA ORDERING	Karen Dean	818-354-9237
HISTORICALLY BLACK COLLEGES & UNIV./		
OTHER MINORITY INSTITUTIONS	Alicia Sherman	818-354-4550
INSTITUTIONAL BUSINESS SYSTEMS	Steve Simpson	818-354-7243
INSTRUMENT REPAIR	Susan Scrivner	818-354-2932
INVENTORY MANAGEMENT (Supply)	Dev Cazier	818-354-2348
ISO9000	Art Duran	818-354-2615
JUST-IN-TIME (JIT) CUSTOMER SUPPORT	Brett Boettcher	818-354-0833
JIT ELECTRICAL SUPPLY CONTRACT		
ADMINISTRATOR	Katie Keolanui	818-354-2930
JIT ELECTRICAL SUPPLY CATALOG MANAGER	Dave Burow	818-354-9324
JIT GENERAL INFORMATION - CONTRACTS	Amanda Beckman	818-393-3491
JIT IRRIGATION SUPPLIES	Katie Keolanui	818-354-2930
JIT - JANITORIAL SUPPLY CONTRACT		
ADMINISTRATOR	Della Borlund	818-354-3508
JIT - JANITORIAL SUPPLY CATALOG MANAGER	Dave Burow	818-354-9324
JIT - MACINTOSH H/W CONTRACT		
ADMINISTRATOR	Marco Covarrubias	818-354-1544
JIT MACINTOSH H/W CATALOG MANAGER	Jim Weisnth	818-354-6468
JIT - OFFICE SUPPLIES CONTRACT		
ADMINISTRATOR	Rose Valdez	818-354-4134
JIT - OFFICE SUPPLIES CATALOG MANAGER	Linda Clifton	818-393-4402
JIT - OFF-THE-SHELF SOFTWARE, CONTRACT		
ADMINISTRATOR	Amanda Beckman	818-393-3944
JIT SOFTWARE CATALOG MANAGER	Linda Clifton	818-354-4402
JIT ORDERING (SOFTWARE)	Lorraine Reeves	818-354-1810
JIT - PAINT SUPPLIES	Rose Valdez	818-354-4134
JIT - PLUMBING SUPPLIES	Katie Keolanui	818-354-2930
LABOR-HOUR TYPE CONTRACTS	Bob Risher	818-354-2975
LARGE BUSINESS INDUSTRY ASSISTANCE	Margo Kuhn	818-354-5722

# ACQUISITION DIVISION: POINTS OF CONTACT CONTINUED

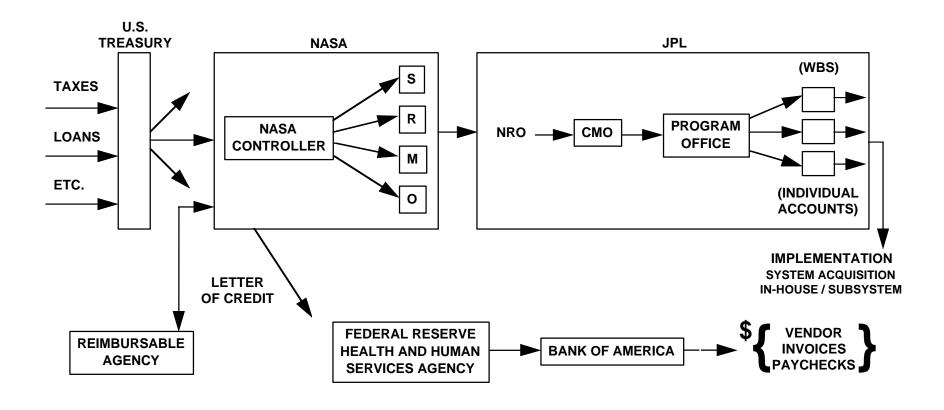
SUBJECT	NAME	PHONE
LEASES	Nancy Walizer	818-354-4023
LOAN AGREEMENTS	John Schofield	818-354-2994
MARS BUSINESS REPRESENTATIVE	Felton Jones	818-393-7780
MARS GLOBAL SURVEY	Bob Kinkade	818-354-2620
MARS PATHFINDER	Nancy Walizer	818-354-4023
MARS 98 PAYLOAD	Nancy Walizer	818-354-4023
MARS 98 PROJECT	Steve Alfery	818-354-4715
MECHANICAL, ELECTRICAL AND FABRICATION	,	
SERVICES	Kathy Soverign	818-354-2939
MEDIUM CLASS EXPLORER (MIDEX) MISSIONS	Stuart Imai	818-354-2070
MICROWAVE LIMB SOUNDER	Kathy O 'Hara	818-354-2832
MISCELLANEOUS PROCUREMENTS	John Brackin	818-354-2832
MULTI-ANGLE IMAGING SPECTRORADIOMETER		
(MISR)	Pat Vitti	818-354-5605
NEW MILLENNIUM BUSINESS REPRESENTATIVE	Jerry O 'Connell	818-354-4885
NONSTANDARD AGREEMENTS	Nancy Walizer	818-354-4023
OCEAN TOPOGRAPHY EXPERIMENT (TOPEX)	Jeff Cornish	818-393-1945
OUTSOURCING SPECIALIST	Stuart Imai	818-354-2070
PHOTO SUPPLY	Randy McDonald	818-354-5529
PLUTO EXPRESS PRE-PROJECT	Peggy Easter	818-354-5354
PRESSURE MODULATOR INFRARED RADIOMETER	Mitch Shellman	818-354-0612
PROCUREMENT INFOBASE LIBRARY (PIL)	Jim Curtis	818-354-5825
PROCUREMENT REQUISITIONS	Glenn Campbell	818-354-2530
PURCHASE CARDS (P-Cards)	Ginger Loesch	818-354-0424
RECYCLING	Pat Vit ti	818-354-5605
REQUISITION INPUT TRAINING	Patti Harer	818-354-6890
	Fran Fisher	818-354-5532
REQUISITION PREPARATION	Patti Harer	818-354-6890
ROSETTA INSTRUMENTS	Glenn Campbell	818-354-2530
SCIENTIFIC & ELECTRONIC WORKSTATION		
PROCUREMENTS	Kristen Nelson	818-354-2928
SEAWINDS	Marty Scarbrough	818-354-1869
SECRETARIAL/CLERICAL COMPANIES	Jackie Booker	818-354-5352
SHUTTLE RADAR TOPOGRAPHY MAPPER (SRTM)	Tom Currier	818-354-0314
	Glenn Campbell	818-354-2530
SIRTF	Janester Short	818-354-4749
SMALL BUSINESS INDUSTRY ASSISTANCE	Margo Kuhn	818-354-5722
SMALL BUSINESS STATISTICS	Martin Ramirez	818-354-6093
SMALL DISADVANTAGED BUSINESS INDUSTRY		
ASSISTANCE	Andrew Guyton	818-354-7531
SOFTWARE & SOFTWARE MAINTENANCE	Rigo Medina	818-354-2961
SOURCE DEVELOPMENT	Margo Kuhn	818-354-5722
SPACE AND EARTH SCIENCE PROGRAMS	Glenn Campbell	818-354-2530

# ACQUISITION DIVISION: POINTS OF CONTACT CONTINUED

SUBJECT	NAME	PHONE
SPECIAL USE PERMITS	Nancy Walizer	818-354-4023
SUBSCRIPTIONS	Carmen Diaz	818-354-2839
SUPERFUND (LEGAL ISSUES)	Nancy Walizer	818-354-4023
SUPPORT SERVICES CONTRACTS	Bob Risher	818-354-2975
TEAMING ARRANGEMENTS WITH INDUSTRY	Ed Kieckhefer	818-354-1293
TECHNICAL DIVISIONS LIAISON	Richard Parker	818-354-2330
TECHNICAL SUPPORT EFFORT PERSONNEL	Bob Risher	818-354-2975
TECHNOLOGY AND APPLICATIONS PROGRAMS	Glenn Campbell	818-354-2530
TECHNOLOGY TRANSFER & COMMERCIALIZATION	Peggy Easter	818-354-5354
TELECOMMUNICATION & MISSION OPERATIONS		
DIRECTORATE (TMOD)	Dave Spencer	818-354-4892
TELEPHONES	Wendy Palsulich	818-354-2900
TEMPORARY CLERICAL SUPPORT EFFORT		
PERSONNEL (CSEP)	Jacqueline Booker	818-354-5352
TROPOSPHERIC EMISSIONS (TES)	Pat Vitti	818-354-5605
UNIVERSITY CONTRACTS	John Davis	818-354-2055
UNSOLICITED PROPOSALS	Mary Helen Ruiz	818-354-7532
VENDOR CODE ADMINISTRATOR	Patti Harer	818-354-6890
VENDOR DEMONSTRATIONS (SEMINARS)	Andrew Guyton	818-354-7531
WIRE	Teresa Alfrey	818-354-3030
WORKFLOW	Mike Klein	818-354-6405



### THE FLOW OF FUNDS



### MARS EXPLORATION PROJECT OFFICE ROLE

- Conduct the concept development and definition, implementation and operations for all Mars exploration projects to ensure the accomplishment of program objectives which include:
  - Mission success: comprehensive portrait of Red Planet
  - Life cycle affordability
  - High science value
  - High public interest, both in educational content and public awareness
  - Significant advanced technology content
  - International cooperation

#### **ENGINEERING AND SCIENCE DIRECTORATE ROLE**

- Provide new mission enabling technology for NASA / JPL programs and projects
- Implement assigned work within established cost, schedule, and performance commitments
- Develop management and engineering processes that lead to effective implementation of work performed by the divisions and their contractors
- Develop and maintain the outstanding professional staff, technical facilities, and laboratory equipment needed to implement JPL programs with scientific and engineering excellence

## TECHNOLOGY AND APPLICATIONS PROGRAMS ROLE

- Develop technology to support the NASA space exploration mission
- Apply JPL's special capabilities to technical and scientific problems of national significance
  - Technology development for non-NASA sponsors
  - Application of technology in tasks and projects for non-NASA sponsors

Transfer technology to other government agencies and to industry and academia

#### SPACE AND EARTH SCIENCE PROGRAMS DIRECTORATE ROLE

- Apply JPL's capabilities in the acquisition, implementation, and conduct of space and earth science research, all flight instruments and all small and moderate flight missions, except non-PI Mars mission to
  - Further the understanding of our solar system, including the planet Earth, the Sun, and the interplanetary medium
  - Study the evolution of other solar systems
  - Investigate astrophysical phenomena pertaining to the formation of stars and galaxies
  - Study performing fundamental physics experiments in a micro-gravity environment
  - Advance the technology of scientific data analysis
  - Foster the development and application of innovative, cost-effective processes and products related to conducting these activities

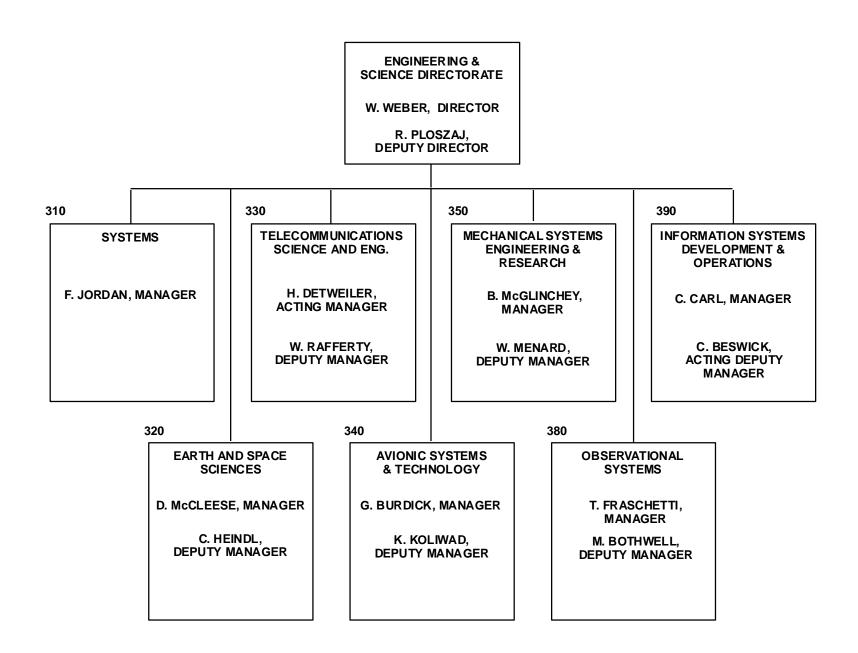
## TELECOMMUNICATIONS AND MISSION OPERATIONS DIRECTORATE ROLE

- Provide flight operations for Galileo, Ulysses, and Voyager deep space flight projects
- Conduct the US Space Very Long Baseline Interferometry (VLBI) project
- Provide for the planning, development, and operation of the NASA Deep Space Network (DSN) and associated support facilities
- Plan and conduct an advanced development program in technologies relevant to the DSN
- Carry out a science program related to the DSN and ground-based radio and radar technologies
- Carry out the Laboratory's frequency management program
- Represent the Laboratory to the appropriate national and foreign government organizations on matters concerning telecommunications and data acquisition
- Conduct the Multi-mission Ground Systems activities

## OFFICE OF ENGINEERING AND MISSION ASSURANCE ROLE

- Assess the technical and safety risks associated with major Laboratory commitments
- Plan and conduct an advanced development program in technologies relevant to safety and mission assurance
- Establish and maintain the process by which the Laboratory conducts engineering reviews
- Establish and maintain the Laboratory's policies that determine the use of engineering standards, practices, and processes
- Ensure the development of the engineering infrastructure and processes required to implement the Laboratory's missions

#### **ESD ORGANIZATIONAL CHART**



#### **ENGINEERING AND SCIENCE DIRECTORATE - PRODUCTS**

#### **ENGINEERING AND SCIENCE DIRECTORATE (300)**

#### SYSTEMS (31)

- MISSION DESIGN
- NAVIGATION
- SYSTEMS ANALYSIS AND ENGINEERING
- SPACECRAFT SYSTEMS DESIGN
- MISSION OPERATIONS SYSTEMS DESIGN (
- END-TO-END INFORMATION SYSTEMS DESIGN
- OPERATIONS RESEARCH
- ECONOMICS

#### **TELECOMMUNICATIONS SCIENCE AND ENGINEERING (33)**

- TELECOMMUNICATIONS SYSTEMS ENGINEERING
- COMMUNICATION THEORY
- MICROWAVE REMOTE SENSING
- TRANSMITTERS AND RECEIVERS
- ANTENNAE
- ELECTROMAGNETIC WAVE THEORY
- ASTRONOMY, **GEODYNAMICS** AND METRIC TRACKING RESEARCH

#### **MECHANICAL SYSTEMS ENGINEERING & RESEARCH (35)**

- MECHANICAL SYSTEM STRUCTURES AND MECHANISMS
- DYNAMICS ANALYSIS
- MATERIALS
- THERMAL AND FLUID SYSTEMS
- ELECTRONICS PACKAGING
- DESIGN DRAFTING AND **COMPUTER AIDED DESIGN** (CAD)
- PROPULSION AND **PYROTECHNICS**
- BIOTECHNOLOGY
- CHEMISTRY CATALYSIS AND CHEMICAL SYSTEMS COMBUSTION
- HEAT TRANSFER
- MICROGRAVITY SCIENCES

#### INFORMATION SYSTEMS **DEVELOPMENT AND OPERATIONS (39)**

SPACE FLIGHT OPERATIONS AND MISSION CONTROL CENTER

- GROUND DATA SYSTEMS
- INSTITUTIONAL COMPUTING SYSTEMS AND SERVICES INFORMATION SYSTEMS ENGINEERING DATA MANAGEMENT AND INFORMATION EXTRACTION
- DIGITAL COMMUNICATIONS SYSTEMS AND COMPUTER NETWORKS COMPUTER GRAPHICS ARTIFICIAL INTELLIGENCE STIMULATION SYSTEMS COMMAND AND CONTROL SYSTEMS SECURE COMMUNICATION

#### **EARTH AND SPACE** SCIENCES (32)

- ACTIVE AND PASSIVE REMOTE SENSING
- EARTH AND PLANETARY **ATMOSPHERES**
- OCEANOGRAPHY
- PLANETARY ASTRONOMY
- INTERPLANETARY PHYSICS
- SOLAR/ASTROPHYSICS
- LABORATORY CHEMISTRY & PHYSICS

#### **AVIONIC SYSTEMS &** TECHNOLOGY (34)

- AVIONIC SYSTEMS ENGINEERING
- SYSTEMS ENGINEERING

**FLIGHT COMPUTERS** 

- ROBOTICS AND TELEOPERATORS
- SEMICONDUCTOR MATERIALS
- EARTH AND PLANETARY GEOSCIENCE
   ADVANCED MICROELECTRONICS/VSI
  - PHOTOVOLTAIC POWER ADVANCED ELECTRONIC PACKAGING **ELECTRONIC FABRICATION IN-SITU EXPLORATION SYSTEMS & INSTRUMENTS DIGITAL & ANALOG ELECTRONICS CONTROL SYSTEM A ELECTROCHEMICAL TECHNOLOGY** TRACKING SENSORS

#### **OBSERVATIONAL** SYSTEMS (38)

**VISUAL IMAGING SYSTEMS INFRARED INSTRUMENTS** 

- PASSIVE MICROWAVE INSTRUMENTS
- IMAGE PROCESSING TECHNOLOGY
- SCIENCE DATA ANALYSIS
- INSTRUMENT FABRICATION AND TEST

02/21/97

### **ITEMS CONTRACTED BY ESD**

#### **By Major Category**

- Flight Spacecraft and Instruments
  - Individual science instruments
  - Subsystems and components
  - Software
- Ground Data Systems
  - Hardware
  - Software
- Technology Development/Studies
  - Available technology contacts listing

## ITEMS CONTRACTED BY ESD (Cont'd)

#### **By Major Category**

- Deep Space Network Facilities
  - Antennas
  - Facilities
- Engineering Support services
  - System Engineering
  - Mission Operations
  - Institutional Engineering
  - Hardware and Software Tasks

# TECHNOLOGY DEVELOPMENTS / STUDIES EXAMPLES USING INDUSTRY SUPPORT

- Trapped Ion Frequency Standard
- Satellite-Personal Communication Terminals
- Optical Transceiver for Deep Space
- HEMT Devices for Cryogenic Low-Noise Amplifiers
- Spacecraft Radio Subsystem Transponders, Antennas, Power Amplifiers
- Ultra-light and Inflatable Antennas
- Miniature Ka-Band Receivers and Transmitters
- Miniature Reliable (UHF) Lander-to-Rover Links
- "Smart Pole" Hybrid Power Switchers
- Advance Therma | I Energy Conversion
- Advanced Data Management and Processing
- Cryocoolers, Composite Materials, and Advanced Structures

# TECHNOLOGY DEVELOPMENTS / STUDIES EXAMPLES USING INDUSTRY SUPPORT (Cont'd)

- Micro Mechanisms and Actuators
- Structure and Position Control, i.e., Piezo and Electro-strictive Techniques
- Advanced Visual and Infrared Detectors
- Lithium and Bipolar Lead-Acid Batteries
- High Efficiency (92%) Hybrid Module for Power Converters
- Methanol and Hydrogen Regenerative Fuel Cells
- Control O ptics Modeling Package
- Advanced Solid State Mass Data Storage
- Micro Devices and Sensors
- Advanced Electronics Packaging and Flight Computer Architecture
- Micro Rovers and Teleoperations
- High Speed Fiber Optics Networks

#### JPL SMALL BUSINESS OVERALL PROGRAM

• Establish S/SDB dollar goals for each fiscal year. For FY '96 goals / actuals (dollars)

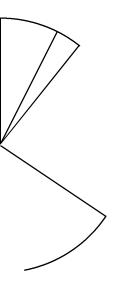
	Goal	Actual	
Small Disadvantaged	13%	17.2%	(\$84.5M)
<ul><li>Women-Owned</li></ul>	4%	4.9%	(\$24.1M)
<ul> <li>Small Business</li> </ul>	36%	38.7%	(\$190.5M)

- Establish preliminary list of S/SDB set-asides for Procurement Forecast.
- Network of S/SDB representatives from all Directorates, meets monthly on status, actions required.
- Periodic reports to Lab management and NASA.

Lab management held accountable for performance in personal performance evaluation.

## **ESD TECHNICAL DIVISIONS SB CONTRACTING**

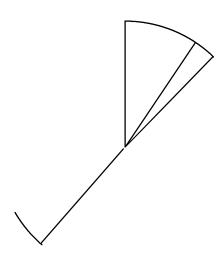






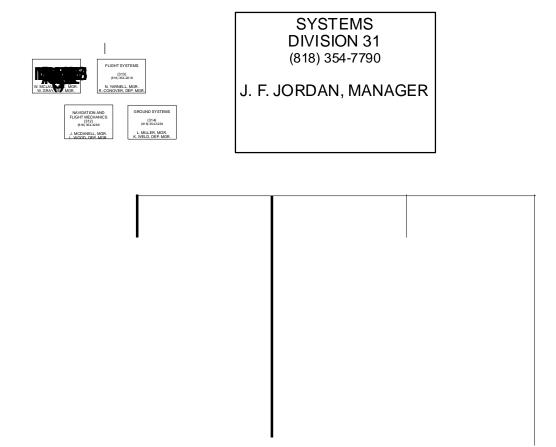
## JPL SB CONTRACTING

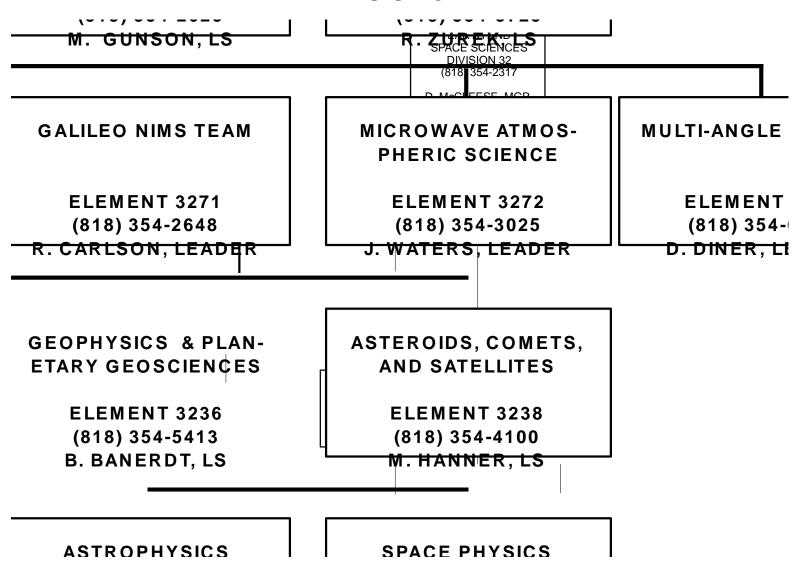




## **APPENDIX C**

# ENGINEERING AND SCIENCE DIRECTORATE ORGANIZATION CHARTS BY DIVISION





TELECOMMUNICATIONS SCIENCE AND ENGINEERING DIVISION 33 (818) 354-3924

H. DETWEILER, ACTING MGR. W. RAFFERTY, DEP. MGR. W. G. MELBOURNE, ASSISTANT MGR.

COMMUNICATIONS SYSTEMS AND RESEARCH (331) (818) 354-7058

J. YUEN, MGR. S. TOWNES, DEP MGR.

#### COMMUNICATIONS GROUND SYSTEMS

(333) (818) 354-2926

J. STATMAN, MGR. W. HURD, DEP. MGR.

## TRACKING SYSTEMS AND APPLICATIONS

(335) (818) 354-8247

C. THORNTON, MGR. T. YUNCK, DEP. MGR.

RADAR SCIENCE AND ENGINEERING

(334) (818) 354-1365 J. VAN ZYL, MGR. F. STUHR, DEP. MGR. SPACECRAFT TELECOMMUNICATIONS EQUIPMENT (336) (818) 354-6044

T. KOMAREK, MGR.



(818) 354-3441



G. M. BURDICK, MANAGER K. KOLIWAD, DEP. MGR.

#### **AVIONIC SYSTEMS ENGINEERING**

(341)(818) 354-6499

R. STANTON, MGR. M. JAHAN, DEP. MGR.

#### AVIONIC EQUIPMENT

(344)(818) 354-4480

J. KLEIN, MGR. K. REH, DEP. MGR.

#### DEVICE, RESEARCH AND APPLICATION

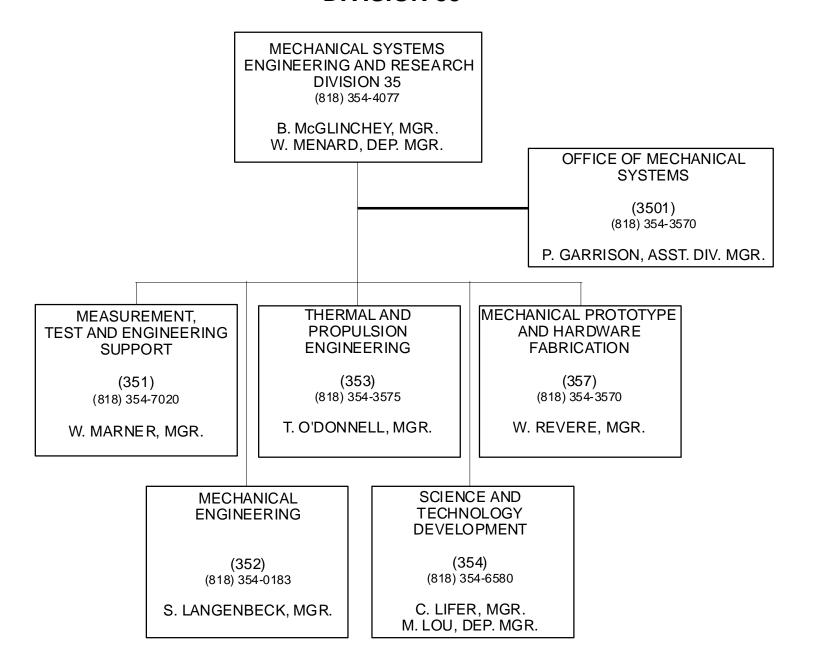
(346)(818) 354-5197

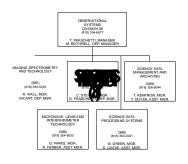
P. BANKSTON, MGR. T. KRABACH, DEP. MGR.

#### **AUTOMATION AND CONTROL**

(345)(818) 354-4430

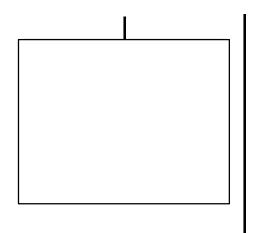
D. EISENMAN, MGR. H. OTAKE, DEP. MGR.





OBSERVATIONAL SYSTEMS DIVISION 38 (818) 354-7584

R. BEALE, MANAGER T. FRANSCHETTI, DEPUTY MANAGER



SCIENCE DATA SYSTEMS

(387) (818) 306-6044

J. RENFROW, MGR.

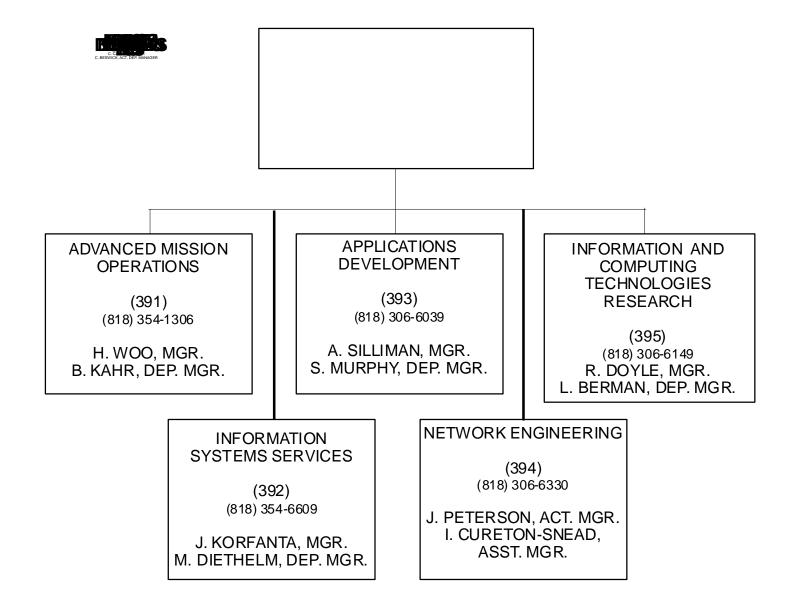
MICROWAVE OBSERVATIONAL SYSTEMS

> (383) (818) 354-8053

G. PARKS, MGR. M. FRERKING, ASST. MGR. EARTH OBSERVATIONS ANALYSIS SYSTEMS

> (386) (818) 354-6323

J. FANSELOW, MGR.



## **APPENDIX D**

### **COMMERCIAL TECHNOLOGY PROGRAM**

Merle McKenzie (818) 354-2577